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10/056,982

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Ned Hoffman

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EXAMINER

PICH, PONNOREAY

ART UNIT

PAPER NUMBER

2135

MAIL DATE

DELIVERY MODE

02/20/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/056,982 | HOFFMAN, NED | |
| | Examiner | Art Unit | |
| | Ponnoreay Pich | 2135 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 60-82,95-103 and 111-114 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 60-62,64-82,95-103 and 111-114 is/are rejected.
- 7) ☒ Claim(s) 63-65 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/31/07 has been entered.

Claims 60-82, 95-103, and 111-114 are pending.

Response to Amendment

Applicant's amendments were fully considered. The 112, second paragraph and 101 rejections made in the prior office action are withdrawn due to applicant's amendments.

Response to Arguments

The arguments with respect to 101 and 112, second paragraph rejections were fully considered. As noted above, the rejections under 101 and 112, second paragraph are withdrawn due to applicant's amendments.

Applicant's arguments with respect to 35 USC 102 and 103 were fully considered, but were not persuasive. On page 14 of the remarks submitted, applicant argues with respect to claim 60 that Dunlevy does not teach "comparing the received biometric sample with at least one currently stored registration biometric samples to find a match". Applicant argues the Dunlevy's match is a result of comparing credit card

numbers to each other rather than comparing biometric samples. The examiner respectfully disagrees.

Dunlevy's uses a credit card number to find a stored biometric sample (i.e. voice print) that is anchored to that credit card number (col 8, lines 20-29). However, it is unknown if the stored voice print matches the one provided by the user or not until a comparison of the stored voice print is done with the received voice print (col 8, lines 29-35). In other words, the credit card number is used as an index to find a specific stored voice print and this specific stored voice print is then compared to the voice print provided by a caller to see if there is a match. There is no presumption of a match until the comparison of the voice prints is done.

As per the rejections of claims 11-114 under 35 USC 103, applicant argues that the combination of Dunlevy with Brunelli would render the prior art invention being modified unsatisfactory for its intended purpose. Applicant states that incorporating Dunlevy's teachings within Brunelli's invention would render Brunelli's invention no longer "synergistic" because the resulting system would result in a system which uses a credit card number to find a match rather than evaluate both the vocal and visual signals to find a match. The examiner respectfully disagrees that the resulting combination would render either the invention of Dunlevy or Brunelli unsatisfactory for its intended purpose in the manner argued by applicant.

The examiner respectfully submits that applicant's argument is based on a flawed understanding of the two references. As explained above, Dunlevy does not use the credit card number to find a match as applicant is arguing. Dunlevy uses the credit card

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number as an index to find a specific biometric sample that has been anchored to the credit card number. Once that biometric sample has been found, a comparison between the found sample and a sample provided by the user over the phone is done to see if there is a match. Brunelli's invention is directed towards a system which could perform identification and verification functions in an optimal manner with reasonably low cost (col 2, lines 3-9). It is true that Brunelli's invention perform identifications of individuals using speech and visual recognition, but he also states that each recognition system can be used individually (col 2, line 21-23). As such, applicant's argument that Brunelli's invention relies on evaluating both the vocal and visual signals to be "synergistic" is incorrect. Note that in Brunelli's invention, there are multiple subset of biometric samples stored for each individual that is registered (col 7, lines 40-47 and col 9, lines 16-19). The identification/verification process works by comparing the received biometric data with the stored samples of all the individuals registered/known to the system (col 11, lines 17-35 and col 12, lines 59-65). Each individual could have a set of 100 biometric samples or more that are registered to them (col 9, lines 16-18). One skilled would recognize that since the samples of all registered individuals are used for comparison, relying on Brunelli's teachings alone would result in having to do a lot of comparison even though Brunelli stated he wanted an optimized identification/verification system. The examiner respectfully submits that the incorporation of Dunlevy's teachings which uses some sort of pin like a credit card number as an index to find a set of stored biometric samples that is anchored to the pin would allow Brunelli's invention to be more optimized by reducing the amount of

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comparison that has to be done. Rather than comparing the received sample with all stored sample belonging to all registered users, incorporating Dunlevy's teachings would allow Brunelli's system to more quickly perform identification/verification by only comparing the received sample with the stored samples of an individual whose stored samples are anchored to the pin/credit card number.

Applicant states that Dunlevy's teachings operate exclusively by telephone, thus could not support the possibility of a visual biometric as required by Brunelli. In response, the examiner notes that as discussed above already, Brunelli recognizes that one can use just one biometric type in his invention for identification/verification rather than having to use both audio and visual biometric, thus the resulting combination invention does not have to use visual biometric as applicant is arguing. Further, a person of ordinary skill in the art is not an automation, but rather is someone having ordinary creativity and common sense. A person of ordinary skill in the art would have recognized that the portion of Dunlevy's invention which could be incorporated within Brunelli's invention to make it more optimal is using some sort of pin like a credit card number as an index to locate a specific set of biometric samples so that the number of comparison to identify an individual could be reduced. One skilled having common sense and ordinary creativity would have recognized that such a teaching is not limited to use with any one type of biometric collection apparatus, thus it does not matter that Dunlevy's invention only uses a telephone to collect biometric samples. The pin could also be used as an index to also look up visual biometric data stored in Brunelli's invention.

Applicant argues that even if the combination of Brunelli with Dunlevy is proper, Brunelli teaches comparing directional derivatives of the biometric samples rather than comparing the biometric samples themselves as recited in claims 111-114. The examiner respectfully submits that a comparison of the directional derivatives is equivalent to a comparison of the biometric samples because the derivatives were derived from the biometric samples and represents the biometric samples. In other words, the biometric samples are compared via a comparison using the directional derivatives.

Claim Objections

Claim 63 is objected to because of the following informalities: In line 2, "one new registration biometric sample" should be "two new registration biometric sample" since it is impossible to receive one biometric sample taken from two different individuals. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 60-61, 66-82 and 95-103 are rejected under 35 U.S.C. 102(a) as being anticipated by Dunlevy (EP 0598469A2).

Claims 60 and 95:

Dunlevy discloses:

1. Receiving a biometric sample from an individual (Fig 2, step 50 and 64).
2. Locating a set (i.e. database) of currently stored registration biometric samples, wherein at least two of the currently stored registration biometric samples in the set are provided by two different registered individuals respectively (Fig 2, step 50; col 5, line 47-col 6, line 5; and col 8, lines 20-29).
3. Comparing the received biometric sample with at least one currently stored registration biometric samples in the set of currently stored registration biometric samples to find a match (Fig 2, step 58; col 8, lines 25-35; col 10, lines 48-54; and col 11, lines 31-56).
4. Transmitting a confirmation of the match (Fig 4, step 128 and col 10, lines 48-54).

Claim 60 is a method claim while claim 95 is directed towards a computer readable media storing software to implement the method of claim 60.

Claim 67:

Dunlevy discloses:

1. Receiving a biometric sample from an individual (Fig 2, step 50 and 64).

2. Locating a currently stored set (i.e. database) registration biometric samples, wherein at least two of the registration biometric samples in the currently stored set are provided by two different registered individuals respectively (Fig 2, step 50; col 5, line 47-col 6, line 5; and col 8, lines 20-29).
3. Comparing the received biometric sample with a subset of the currently stored set of registration biometric samples to produce an evaluation (Fig 2, step 58; col 8, lines 25-35; col 10, lines 48-54; and col 11, lines 31-56).
4. Transmitting the evaluation (Fig 4, step 128 and col 10, lines 48-54).

Claims 61, 68, 71, 74, 96, and 101:

Dunlevy further discloses receiving a personal identification code from the individual (col 5, line 47-col 6, line 1; col 7, lines 33-57; and col 8, lines 25-29).

Claims 62, 72, 75, 97, and 102:

Dunlevy further discloses wherein locating a set of currently stored registration biometric samples includes locating the set of currently stored registration biometric samples associated with the personal identification code (col 5, line 47-col 6, line 5; col 7, lines 33-57; and col 8, lines 25-29).

Claim 98:

Dunlevy further discloses receiving a new registration biometric sample for the individual during a registration step; and string the new registration biometric sample in the set of currently stored registration biometric samples (Figures 1-2 and col 8, lines 36-48).

Claim 99:

Dunlevy further discloses receiving a personal identification code for the individual during the registration step (col 8, lines 21-48).

Claim 100:

Dunlevy further discloses wherein storing the new registration biometric sample includes storing the new registration biometric sample in the set of currently stored registration biometric samples associated with the personal identification code (col 8, lines 21-48).

Claims 66, 73, and 103:

Dunlevy further discloses wherein the identification method is conducted without the individual presenting any smartcards or magnetic swipe cards (Figures 1-2). Note that identification is done using only voice identification via a telephone and touch tones on the telephone, thus no cards are presented for identification.

Claim 69:

Dunlevy further discloses wherein each of the registration biometric samples is associated with a personal identification code from the individual (col 5, line 47-col 6, line 5; col 7, lines 33-57; and col 8, lines 25-29).

Claim 70:

Dunlevy further discloses:

1. The method further comprises receiving a personal identification code from the individual (col 5, line 47-col 6, line 1; col 7, lines 33-57; and col 8, lines 25-29).
2. Comparing the received biometric sample includes comparing the received biometric sample with a subset of the currently stored set of registration biometric

samples associated with the personal identification code to produce the evaluation (col 5, line 47-col 6, line 5; col 7, lines 33-57; and col 8, lines 25-29).

Claim 76:

Dunlevy discloses:

1. Storage means for storing a database (i.e. voice print database) of registration biometric samples, wherein at least two of the registration biometric samples in the set are provided by two different registered individuals respectively (Fig 2, step 50; col 5, line 47-col 6, line 5; and col 8, lines 20-29).
2. An input unit (i.e. touchtone telephone) configured to receive a biometric data (i.e. voice data) from an individual and output data associated with the individual over a communication link (col 7, line 33-col 8, line 5 and Fig 2).
3. A comparator component configured to compare the biometric data from the individual with at least one biometric sample in a subset of the registration biometric samples stored in the database to locate data associated with the individual, the subset of the registration biometric samples including registration biometric samples from at least two individuals (col 8, lines 21-35). *The credit card information of an individual is used as an index to look up stored biometric data for an individual. This implies that there are at least two individuals who have their biometric samples registered by Dunlevy's invention, else there would be no need for use of a look up index. After the biometric data that is anchored to the credit card has been found, the user's received voice print is compared to the stored voice print to see if there is a match. The result of the comparison is*

used to determine whether or not to proceed with further processing for the individual as seen in Figure 4 where further user data such as delivery data and risk information are located.

Claim 77:

Dunlevy further discloses wherein the input unit is configured to receive a personal identification code from the individual (col 5, line 47-col 6, line 1; col 7, lines 33-57; and col 8, lines 25-29).

Claim 78:

Dunlevy further discloses wherein the comparator component is configured to compare the biometric data from the individual with a subset of the registration biometric samples associated with the personal identification code from the individual to determine the identity of the individual (col 5, line 47-col 6, line 5; col 7, lines 33-57; and col 8, lines 25-29).

Claim 79:

Dunlevy further discloses wherein the input unit is configured to receive a registration biometric sample for the individual and store the registration biometric sample in the database (col 5, line 47-col 6, line 5; col 7, lines 33-57; and col 8, lines 25-48).

Claim 80:

Dunlevy further discloses wherein the input unit is configured to receive the registration biometric sample for the individual a registration personal identification code for the individual and to associate the registration biometric sample with the registration

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personal identification code in the database (col 5, line 47-col 6, line 5; col 7, lines 33-57; and col 8, lines 25-48).

Claim 81:

Dunlevy further disclose wherein a central computer system is configured to receive the personal identification code from the individual over the communication link, and locate the set of biometric samples associated with personal identification code (col 5, line 47-col 6, line 5; col 7, lines 33-57; and col 8, lines 25-29).

Claims 82 and 103:

Dunlevy further discloses wherein the identification system/method is designed to operate/conducted without the individual presenting any smart cards or magnetic smart cards (Figures 1-2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 111-114 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunlevy (EP 0598469A2) in view of Brunelli et al (US 5,412,738).

Claims 111, 113, and 114:

As per claims 111 and 114, Dunlevy does not explicitly disclose the following limitations, but they are disclosed by Brunelli: wherein comparing the received biometric sample with at least one of the currently stored registration samples includes: comparing the received biometric sample with a first of the currently stored biometric samples; and if the received biometric sample does not match the first of the currently stored registration biometric samples, comparing the received biometric samples with others of the currently stored biometric samples until either a match is found or the received biometric sample has been compared with each of the currently stored biometric samples (col 6, lines 50-65; col 7, line 66-col 8, line14; and col 12, lines 59-65).

At the time applicant's invention was made, it would have been obvious to one of ordinary skill in the art to modify Dunlevy's invention according to the limitations recited in claims 111 and 114 as per Brunelli's teachings. One skilled would have been motivated to do so because not only would it allow Dunlevy to verify the identity of an individual involved in a transaction, but it would also allow for the specific identification of an individual in an optimal manner (Brunelli: col 2, lines 3-10). This could lead to the faster arrest of individuals who fraudulently uses someone else's account without their permission in cases where the unauthorized users also possess their own respective accounts.

Claim 113 is directed towards a system with a comparator that is operative to perform the method of claim 111 and is rejected for similar reasons given above.

Note that it would also have been obvious to one skilled in the art to instead modify Brunelli's invention using Dunlevy's teachings. One skilled would do so by incorporating into Brunelli's invention, Dunlevy's teachings of using some sort of pin like a credit card number as an index to locate a specific set of biometric samples belonging to a specific individual prior to performing the comparison of biometric data (col 8, lines 21-35). One skilled would have been motivated to do so because Brunelli's goal is to provide an optimal identification/verification system (col 2, lines 3-10) and by incorporating the discussed teachings of Dunlevy, the amount of comparison that has to be done by Brunelli's invention would be reduced, thus speed of operation would be further optimized.

Claim 112:

As per claim 112, Dunlevy does not explicitly disclose the following limitation, but it is disclosed by Brunelli: wherein comparing the received biometric samples with a subset of the currently stored set of biometric samples to produce an evaluation includes comparing the received biometric samples with at least two registration biometric samples in the subset of the currently stored set of registration biometric samples to produce an evaluation, the subset of the currently stored set of registration biometric samples includes at least two registration biometric samples (col 6, lines 44-54; col 7, lines 27-43; and col 13, lines 25-27).

At the time applicant's invention was made, it would have been obvious to one skilled in the art to modify Dunlevy's invention according to the limitations recited in claim 112 as per Brunelli's teachings by comparing more the received biometric

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samples with at least two registration biometric samples. One skilled would have been motivated to do so because the recognition ability of Dunlevy's system would be improved by use of more than one sample of the person to be recognized/identified/verified (Brunelli: col 13, lines 25-27).

Note that it would also have been obvious to one skilled in the art to instead modify Brunelli's invention using Dunlevy's teachings. One skilled would do so by incorporating into Brunelli's invention, Dunlevy's teachings of using some sort of pin like a credit card number as an index to locate a specific set of biometric samples belonging to a specific individual prior to performing the comparison of biometric data (col 8, lines 21-35). One skilled would have been motivated to do so because Brunelli's goal is to provide an optimal identification/verification system (col 2, lines 3-10) and by incorporating the discussed teachings of Dunlevy, the amount of comparison that has to be done by Brunelli's invention would be reduced, thus speed of operation would be further optimized.

Allowable Subject Matter

Claims 63-65 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and rewritten to fix the objections noted above. The claims are allowable for the limitations further recited in claim 63. Claims 64-65 are dependent on claim 63.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ponnoreay Pich whose telephone number is (571)272-7962. The examiner can normally be reached on 9:00am-4:30pm Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ponnoreay Pich/
Examiner, Art Unit 2135